WELLS' RECENT ECONOMIC CHANGES.[1]

IT would be difficult for an economist to choose a subject of more general interest than that which Mr. Wells has taken. The industrial organization of the present age has changed from that in the past in so many ways that the actual economy of the American people is a radically different one from that of their ancestors. And certainly there is no American economist better fitted by nature and experience than Mr. Wells for the task he has chosen. He has a good mental equipment for a statistician and a wide knowledge of all the economic changes of recent times. His mind is a great storehouse of facts which need only to be properly arranged and co-ordinated to be of the greatest value to all persons desiring to comprehend the economic changes taking place at the present time. There is no other place where the leading facts bearing upon the recent industrial changes have been so well presented as in this book. In fact we can almost say that there has been no attempt made by other writers to arrange these facts properly, so as to show their bearing upon economic doctrine.

So long as the interest of the reader is directed solely toward acquiring the facts connected with the recent economic changes, he will find Mr. Wells' book of especial importance. But there is another side to the matter which demands attention. While Mr. Wells has a ready command of facts and is strong in all particulars where facts have a bearing, yet in his logic and in the way he draws conclusions from his facts, Mill and Cairnes have surely not been used as models. From this combination of circumstances it seems to me that his book will have an undesirable effect. It must become a part of our present literature because of the store of facts which it contains. It

[1] Recent Economic Changes. By David A. Wells. New York, Appleton & Co., 1889. — xii, 493 pp.

will pass into the hands of all students of economics and be read by the general public more than any other book of the day. If therefore attention be not directed toward the weak side of this book, it will be likely to leave upon the public a very erroneous impression as to the present state of economic science, and to retard that growth of good reasoning upon which all economic progress depends.

In this connection there is another point of view which is well worthy of attention. It is often asked why economic writers do not have a greater influence in moulding public opinion. I think even Mr. Wells would admit that his many discussions have not had that influence upon the public for which he might well have hoped. How is this relative lack of success to be explained? It cannot be said that the trouble lies in the facts which Mr. Wells presents, because in all his writing he is able to produce an abundance of facts in support of his theories. The trouble lies in his logic. He makes use of all the erroneous logical conceptions which are popular with the public; and thus his opponents, by the use of the same logic, are able either to avoid his inferences or to substantiate their own opposite conclusions. There is no way to raise the level of economic discussion but by an education of the public out of the erroneous logical conceptions of which they make use. With popular logic, it is safe to say, almost any conclusions can be substantiated from any set of facts; because the logic which intervenes between the facts and the conclusions is of such a nature that the reasoner draws from the facts those conclusions which harmonize best with his preconceived notions. The criticisms, therefore, which I shall make upon Mr. Wells' book will be directed primarily against his use of logic. I hope to show that such reasoning as Mr. Wells employs, even though it is still in popular use, is logically erroneous and overlooks all the recent developments of economic science.

There is special danger at the present time that the errors of this book will be overlooked and that the methods of the author will receive recognition from a large body of economists, because the conclusions at which Mr. Wells arrives har-

monize with their views. Economists should not, however, shut their eyes to erroneous reasoning merely because they agree with the conclusions. The reasoning is in reality of equal importance with the facts, and economists ought to criticize severely any book that uses poor reasoning even though the conclusions are in harmony with their point of view. So long as the tendency of a book and not its reasoning is made the basis of approbation, the tone of all economic discussion will be very low. In the confusion which will thus arise, economic science cannot influence the development of public opinion to the extent which is to be desired.

The point of view taken by Mr. Wells is to such a degree out of harmony with mine, that it would be very easy for me to join issue with him upon his conclusions and direct my whole attention towards refuting them. In this way perhaps a more interesting discussion would arise than that upon which I am about to enter. Yet I think that such a discussion would be comparatively worthless for the development of economic science because of a lack of harmony as to logical method. I shall therefore direct my criticisms primarily against that part of Mr. Wells' book where his conclusions agree in the main with my own. In this way the logical method may be brought into the foreground and a correct comparison made as to the validity of the different methods of reasoning.

If I understand Mr. Wells' position correctly, his views harmonize quite fully with mine as to what is the best policy of our government in relation to the use of gold as a basis of our money system. We both agree that the time has come when gold can with advantage be made the sole basis of our money system and that the disadvantages of a double standard far outweigh any advantage we can derive from it. Here then a good opportunity presents itself to test the validity of Mr. Wells' reasoning, since neither facts nor conclusions are in question. It is the road from the facts to the conclusions to which I wish to direct attention.

Mr. Wells states clearly his logical method of reasoning on pages 124 and 125. The first premise from which he reasons

is that no extraordinary or complex agency should be invoked to explain phenomena so long as ordinary and simple ones afford an equally satisfactory explanation. This canon seems reasonable at first sight, yet on a little examination it will be seen that it is without any value, because it does not give any criterion by which to distinguish an extraordinary or complex agency from an ordinary or simple one. Mr. Wells would doubtless regard as very simple an agency which, to his opponent, would seem very extraordinary. This fact is clearly brought out in his second premise, because he starts out with the assumption that a particular doctrine about supply and demand is the most natural presumption in the case. But Mr. Wells certainly is not so ill-informed of economic discussion as not to know that this very premise which he regards as so natural is one of the most disputed questions in economic literature. What help can the preference of the natural presumption give us, when each writer regards his assumption as the natural one and that of his opponent as the extraordinary and complex one? Mr. Wells' position is remarkable from still another point of view. At its very basis lies the assumption that the recent fall in prices is due to improvements in production and not to the scarcity of gold. This presumption Mr. Wells regards as the natural one. Yet this method of accounting for the general fall of prices, natural as it may seem to Mr. Wells, has never been used before the present bi-metallic discussion. The whole subject of the changes in the value of the precious metals has occupied the attention of economists for the last two hundred years; and in every such discussion, until the present time, the assumption has been that if prices as a whole have fallen it was a result of an appreciation of the value of money. It is almost comical therefore to see Mr. Wells, in the face of the whole economic discussion of the last two centuries, setting up a new point of view, not yet a dozen years before the public, as the natural one. Does it need any more proof to show that the attempt to distinguish between the ordinary and the extraordinary or the natural and the artificial is of no value in arriving at correct logical conclusions?

In the closing section of the paragraph to which I have referred Mr. Wells makes a serious mistake in confusing the abundance of capital and a low rate of interest with an abundant supply of money. From the approving manner in which he quotes Lord Addington he seems to affirm that there can be no appreciation of the value of money so long as there is an abundant supply of capital and a low rate of interest. After all the discussion which has taken place in order to show that the popular use of the word "money" has two meanings, — the one referring to the quantity of the currency and the other to the abundance of loanable capital, — it seems strange that an economist of his reputation should confuse the two. A low rate of interest indicates an abundance, not of money, but of capital seeking investment; and it is quite possible that a nation should have a plentiful supply of capital and yet have a decreasing supply of money. Capital may grow and interest may fall at the same time that money is becoming scarce. In what way would Mr. Wells account for the fall in currency prices at the close of the Civil War except by a change in the relation of the quantity of paper money to the volume of business?

But even on Mr. Wells' own basis there seems to have been an increase in the value of gold. He claims that there has been a reduction in the price of those commodities only which are now produced by improved processes. Another class of commodities, he thinks, has increased in price (page 191). This class is composed mainly of those articles which are produced by unaided labor under conditions similar to those by which the articles were produced in earlier times. Now, gold is a product of manual labor and belongs to the latter class, not to the former. Gold is obtained in the same way as formerly. There have been no changes in the methods of producing it. Hand labor still washes the gold from the sand, and its value must be determined by the value of labor. Labor having increased in value, as Mr. Wells claims (page 361), we should expect to find as a result that the value of gold in the market would be greater than formerly.

The challenge which Mr. Wells gives to his opponents, to show how a scarcity of gold can depress prices, affords the most favorable opportunity to compare his methods of reasoning with established economic canons. He is perfectly safe in asking for a concrete case of a particular commodity which has fallen in price from a scarcity of gold, because such a scarcity affects all commodities alike and does not furnish concrete cases. The chief difficulty with Mr. Wells is that he takes hold of this problem wrong end first. *How prices are depressed* is not an independent proposition to be treated alone. It can be solved only after knowing *how prices are fixed.* That the scarcity of gold lowers prices is a deduction from the well-known facts upon which the laws relating to the value of money depend. While the effect of a scarcity of gold in lowered prices may be disputed, no one yet has denied that the rapid increase of the gold supply since the discovery of America has raised prices. If an increase in the supply of gold will raise prices, it is certainly good logic to assume that a scarcity of gold will have the opposite effect. Perhaps, however, the best proof of the fact that a change in the quantity of money affects prices comes from the history of paper money. There is in this history an abundance of facts showing that the quantity of money is an important element in fixing prices, and Mr. Wells must transfer his battle to the causes fixing prices in these cases before the facts of his opponents can be called into question. He must, in the first place, give us a theory of fixing prices in which the quantity of money plays no part — a theory making prices depend solely upon the abundance of capital, the rate of interest, the amount of credits or the quantity of circulating personal property. When such a theory is advanced by Mr. Wells or the friends from whom he quotes, they will find that their opponents have ample resources to sustain the position of the earlier economists.

The only strange thing is that he should suppose that the facts he presents are new to economic literature and hence can have an effect upon the theory of money. He talks of the different quantity of money needed by France and England to do

the same amount of business, just as though this fact was not illustrated and explained in every elementary political economy. He brings forward a table (page 222) to show that prices are not determined by the quantity of money, just as if the author of the laws of money was a mere theorist ignorant of commercial facts. While there has been an abundance of fault found with Ricardo's knowledge of industrial relations, no one has dared to question his thorough familiarity with money matters. He was a practical business man who appreciated fully all those conflicting surface currents which affect the money market. His success as an economist lies in the careful analysis he made of these conflicting causes and in the extent to which he revealed the laws upon which they depend.

The defects of Mr. Wells' point of view come out very clearly in discussing the future of silver. From what he says on page 459, it does not seem that he anticipates or even desires any reduction in the price of silver. He has no objection to the bolstering up of the price of silver, only the bolstering must be done by his method and not by that advocated by the bi-metallists. They would like to have our government keep up the price of silver by increasing the coinage of our country. This Mr. Wells does not wish to see done. He thinks the duty of upholding the price of silver should fall upon the less civilized races, for which a silver standard is in his judgment peculiarly adapted. Make them more prosperous and they will use more silver, and as a result the present supply of silver can be used up in their currencies. Accepting this way out, Mr. Wells wants governmental action as much as our bi-metallists, the only difference being in the line of action to be pursued. Mr. Wells' remedy is the one he applies to all industrial troubles — that of the reduction of the tariff. Reduce the tariff and then, in his opinion, we can secure a market for all our silver in the less civilized nations with whom we trade. The error in this position lies in supposing that the American people are as a whole interested in a high price for silver. On the contrary, they are deeply interested in a low price for silver. Silver is a commodity which it is a good thing for the American people to consume. It has

qualities which would make it especially useful to mankind if it could be cheaply produced. It will not easily tarnish and has a brilliancy and beauty that would cause it to displace, for many purposes, the cheaper metals which lack these qualities. Its clear, metallic tone makes its use for musical instruments very desirable. Silver ware also is of immense importance to the American people for household uses. We must therefore regard the interest of the American people as lying in cheap silver and not, as Mr. Wells supposes, in dear silver. The great advantage of a single standard of gold lies in the fact that it allows the use of silver as a commodity by the American people, instead of having it stored up at Washington, as the advocates of dear silver demand. In the end the American people will accept neither the solution demanded by the friends of silver nor that suggested by Mr. Wells. They will not pile up the silver in Washington, nor will they export the mass of it for the use of less civilized countries. They will retain it for their own use and consume it in a thousand ways that will add materially to their happiness and prosperity.

In the endeavor to restore the price of silver to its former level there is nothing akin to the doctrine of protection. It lies at the basis of all protectionist arguments that in the end the protected articles become cheaper to the public than foreign productions. Owners of iron and copper mines get their protection on the plea that it helps to cheapen the metals they produce; and they present a mass of facts which at least seem to show that protection has benefited the consumers of their products. The owners of silver mines, on the contrary, do not ask for a higher price of that product in order that it may in the future be permanently reduced to a lower price than ever before. They claim that a high price of silver is a benefit to the public, and they ask the government to lend its aid to their endeavors in behalf of a permanent increase of this price.

Butter-making is the only other industry which stands in the same position. The dairy men ask that the price of butter be restored to what it was before the manufacture of oleomargarine,

and they make no claim that this increase of price will lead ultimately to lower prices. The dairy men want "natural" production as badly as Mr. Wells does. He therefore deserves great credit for breaking away from his prejudice for "natural" production in this case. It is hard, however, to see why the "natural" production of butter should not have the same preference as that of sugar. If the cane is defrauded by getting sugar from a beet, certainly the cow is wronged by making butter from a hog.

A few more illustrations of the logic of Mr. Wells may profitably be selected from other portions of his book. His defective reasoning comes out quite clearly in discussing the relation between wages and labor-saving machinery. He argues that labor-saving machinery must be beneficial to laborers because wages have risen since the introduction of improved machinery. In this matter his opponents presumably would not contradict any of Mr. Wells' facts. They would merely point out the defects in the conclusion. Wages may have risen, they would say, but not in proportion to the increase of productive power. If this is true there must be some cause for the deficiency — there must be some counteracting agency which has prevented the laborers from receiving a proper share of the increase of productive power. For those analyzing the present situation in this way, it is at least tenable to maintain that the one-sided industrial development of the laboring classes and the economy of skill resulting from the use of large quantities of machinery are the causes of the slower increase of wages as compared with the increase of productive power. The difference in the two positions, therefore, is not a question of fact as to the increase of wages; it is merely a question of reasoning as to what is the influence of the different agencies which are operating upon the laboring classes.

Another illustration of bad reasoning is to be found on page 370, where the author assumes that the absolute share of the product to both laborer and capitalist has been increased because of the increase of the total product. This theory overlooks the fact that the whole product of industry does not

go to capitalists and laborers. The whole problem of rent and the influence that it has on the distribution of wealth are overlooked. There has been nothing in the development of economic doctrine in this century that is of so much importance as the setting aside of this early conception of distribution and the introduction in its place of the Ricardian conception, by which rent becomes a factor in the distribution of equal importance with the other two. But Mr. Wells' reasoning comes in conflict with accepted economic doctrine in another way. He assumes that wages are fixed by the average return for labor and not by the least productive labor. According to well-established economic doctrine, wages and interest are determined by the margin of cultivation, that is, the poorest land of which the community makes use. Any advantage possessed by laborers on better land is taken from them as rent. There is hence a great fallacy in assuming that all the increase of productive power has been added to wages and capital. This favorable result could only obtain when poorer lands have not been brought into cultivation since the increase of productive power. To the discussion of this problem Mr. Wells adds nothing. His reasoning, therefore, is defective and his conclusions are out of harmony with economic doctrine.

The illustrations I have used are sufficient to give a correct idea of Mr. Wells' method of reasoning. He reduces all economic problems to too great a simplicity. He has too few causes, and all these causes he makes more powerful than they really are in the economic world. Each class of phenomena is, from his point of view, the result of some one force or cause, and these causes are so few in number that he does not seem to regard any disturbance of the action of one cause by another as possible. Mr. Wells seems also to think that if one cause is really at work, it must work so undisturbed that the effect will be wholly its effect. If improved production lowers prices, he thinks that all reduction of prices must result from improved production and that no other cause can play any part. If wages have risen because of the freer use of machines, and if the results are good as a whole, he seems to infer that machines

cannot produce any injurious effects. He is never satisfied unless his proof tallies with the effect of his single cause, as in an engineering problem. Good reasoning upon economic subjects is, however, based upon a very different supposition. There is in society a great variety of causes in operation, and their effects never tally exactly with those which would be produced by any one cause operating alone. Oftentimes a cause is so counteracted by the effects of other causes that the results do not seem to show any effect of the particular cause in question. Yet we know that it was in operation, and we can measure its effects in a negative way by seeing to how great an extent it has lessened the effects which would follow from the other causes if it were not in operation. The names Mr. Wells applies to his causes indicate very clearly his method of reasoning. "All-sufficient" (page 87) and "all-pervasive" causes (page 205) sound well, but are not to be found in an economic world. "Synchronous" causes belong to the same class. It is unfortunate that Mr. Wells did not point out some "irresistible" cause. He also speaks as though there were causes as constant as the influence of gravity — an assumption which shows a wrong conception of the way economic causes influence phenomena. Mr. Wells is perfectly right in asserting that the advocates of the scarcity of gold can produce no such causes nor show any of their results in an economic world. They would be likely to reply that they had no desire to produce any such causes, and to make the same issue with him that I have made as to the logical method of proving economic propositions. When gold rises in price, other prices certainly do not drop like shot; and Mr. Wells wastes time in proving that there is no such close relation between the price of gold and the price of commodities. There are so many other causes besides the scarcity of gold that affect the prices of commodities, that any change in the quantity of money can be shown only by the most careful investigation running through a long series of years.

Economists do not regard a doctrine as imperfectly proved merely because some of the facts do not appear to fully accord with it. The greatest successes in the analysis of economic

phenomena have been those which have shown the law to be entirely different from what surface appearances seemed to indicate. On the part of Ricardo and other leaders of modern economic thought there has been no tendency to hide or discolor facts merely because the doctrines which these authors advocate do not have all the facts on their side. It is expected that an apparent opposition between the various classes of facts will appear in the investigation of any problem. He is the skilful economist who so analyzes these complex conditions as to show the simple laws which work beneath the surface.

We now arrive at the proper place to answer the question raised by Mr. Wells as to the cause of the present reaction against free trade throughout the whole civilized world. A little of the history of economic theory will throw a wonderful light upon this subject. The agitation for free trade and sound currency was begun by Adam Smith, yet the strong array of facts he presents made little or no change of public opinion. The same old fallacies throve; they even gained in force through the next thirty years, before Ricardo took up the struggle for the new economic doctrines. He, however, fought his battle not with facts but with sound logic and bold theories. Thirty years of such warfare resulted in a decisive victory for the new commercial policy. But no sooner was the movement successful than new leaders were chosen. Facts now seemed to prove the free-trade theory, and a resort was again made to the weak logic of the earlier period. The smooth tongue of Bastiat displaced the rugged logic of Ricardo, and in every land the Manchester party found adherents who strove to convince the public that progress could be hoped for only through an imitation of English civilization, political and economic. Cartloads of English facts were imported by these enthusiasts, which, when watered by poor logic, were given as free food to all their adherents. The poor logic seems however to have been the only part of the dose assimilated by the public; and at the end of another forty years it seems to have neutralized all the advantage gained by the Ricardian movement. Not only does the economic policy of the civilized world seem

to have returned to that of an earlier period, but the vantage ground obtained by logic and theory has been to a great degree lost. In the discussion of free trade we find ourselves back at the time of Adam Smith, because we have gone back to the logic of his age. So long as both parties resort merely to facts vitalized by feeling, neither can win more than an apparent victory.

Economists have nothing permanent to gain by destroying the dogma that free trade is good for all nations and ages, if in its place they set up another, asserting that national industries are mere creatures of governments. The success of the beet-sugar industry in Germany no more proves the second dogma than English free trade did the first. It is as useless to expect that the sugar beet will thrive in all parts of Europe as it would be to expect the same of the peach or the grape. A mere imitation of a successful German policy will be as disastrous as a like imitation of England has proved. Universal theories are failures because the superstructure reaches out beyond the facts upon which it is based. Each economic policy has a value only under the particular industrial conditions of a given nation at a given time. It is not the mere accumulation of facts that will win permanent victories for those who believe that the economic policy of each nation should be based upon its own industrial conditions. Only by the development of better logic and sound theory can they use the facts with enough skill to thoroughly root out the creed of universal free trade and thus give to each nation a national policy which will develop all its resources.

Before closing this review I wish to take up a few problems where issue may be taken not merely with the author's reasoning but also with the facts upon which his reasoning is based. Mr. Wells devotes a considerable space to the discussion of the beet-sugar industry in Germany and the iron industry in America, and endeavors to show the great injury done by the protective policy of America and Germany in fostering these industries. If he had presented all the facts bearing upon the development of these two industries, there would have been no reason why

at this time these problems should be discussed. But those peculiarities in Mr. Wells' reasoning of which I have spoken have led him to color the facts in such a way that the real progress of these industries and the causes aiding in their development, together with the influence which they have upon the whole industrial system of the countries in question, cannot be seen. I shall therefore take up both these problems, and show in a concise way what are the leading facts upon which conclusions opposite to his have been based.

To know the importance of the sugar industry of Germany, not only to the welfare of Germany but to that of the whole world, a short sketch of the production of sugar for the last three hundred years is necessary. The cane sugar is suited only to semi-tropical regions and must be produced under the social and political conditions which are there prevalent. On account of the ignorance of the people and the insecurity of property, only the crudest methods of production have been brought into use. As a result of this condition of affairs three hundred years have gone by and no change has been made in the methods of producing sugar. The same crude machinery and wasteful methods are in use. The people of the whole world have paid for ages a very high price for their sugar, and there seemed to be no hope that any change in the social conditions of these regions would allow the inauguration of any better methods of production. To remedy this state of affairs, Germany endeavored to produce its own sugar from the beet root. For a long series of years the government has encouraged the production of sugar from beets, until at length a beet has been obtained which is suited to the soil and which yields sufficient sugar to make its production profitable. In the contest between the cane sugar of the South and the beet sugar of the North, climate was on the side of the South while intelligence and capital were on the side of the North. Intelligence showed itself a more important factor than climate, and the price of sugar produced in Germany has now been reduced much below what it could have been while the whole supply of the world was obtained from the half-civilized semi-tropical regions. This reduction of the price

of sugar was greatly stimulated by the bounties paid by the German government for the exportation of sugar. These made the profits of sugar production so great that the industry was developed throughout Germany in many new places for which it was specially suited. It is not likely that fifty years of production without a bounty would have done so much for cheapening the price of sugar as the bounty-paying policy has done in the last ten years. The only objection that Mr. Wells can raise to this transference of the production of sugar from the South to the North, is that "natural" production has been destroyed. It is not, however, the beet-sugar production that has destroyed "natural" production, but the ignorance of the people in semi-tropical regions. Their crude methods prevented any reduction in the price of sugar so long as the whole world depended upon them for its production. The interference of Germany with "natural" production will in the end also be of the greatest advantage even to the semi-tropical peoples, for it has broken down the social conditions which kept the industries of those countries stationary. New methods must now be inaugurated by them in order to compete with the cheaper sugar of the North; and this means not only the introduction of capital but also the increase of intelligence and security on the part of the people.

Mr. Wells is also greatly mistaken in his supposition that the taking off of the bounties on the part of European nations would cause the production of beet sugar to become unprofitable and compel a return to the "natural" production of Southern regions. A still further reduction of the price of beet sugar can be made, and still it will hold its own in the world's market. There have been many new regions opened up to the production of sugar to which the beet is well adapted and from which this new industry will not be driven until a much lower price prevails than we now have. It must be kept in mind that the beet is produced upon the most valuable land in Germany and that the rent of this land is still very high. Much more rent is paid for producing the beet than could be obtained from any other crop, and in the reduction of this rent there is

a possibility of a much lower price for beet sugar. The present difficulties in which so many of the German producers are now involved arise largely from the high price which they have paid for the land upon which the sugar is produced. It is easy to see that if a producer bought his land before the serious fall in the price of land which has recently taken place in Germany, he would become involved and probably fail even though the production of sugar was of itself profitable. Under such adverse conditions there will of course be many failures, but the new owners of the land and of the factories will not cease to produce so long as they get as much from their land and from their factories as is obtained in other industries.

For these reasons the introduction of the sugar beet has been a great advantage not only to Germany but to the whole world. We now have a bar to any future rise in the price of sugar. Semi-tropical regions can never again exact that price for sugar which they formerly obtained. They may in the distant future, it is true, displace the German production, but it will be only after modern civilization has carried its benefits to the peoples of all these lands and their intelligence and the quantity of capital they use have become equal to that employed by the German people.

The peculiarities of Mr. Wells' views, as well as his way of presenting facts so as to make them tally with his position, are perhaps most clearly seen in his discussion of the production of iron and steel in America. In the body of Mr. Wells' book he devotes much space to the comparison of European with American prices in order to show the cost of the tariff to the American consumer. His method of reasoning is very simple: it consists in taking the price of the commodity on the English market and comparing it with the price on the American market. Then he estimates the burden of the tariff to the American consumer by the difference between the two prices. The difference in the price of pig iron in America and England, according to Mr. Wells, is seven dollars a ton, and the burden of the tariff upon the American consumers is measured in dollars by multiplying the amount of pig iron consumed by

seven. In the same way he makes out that the production of steel in America costs American consumers fifty-six million dollars a year, and that the loss to the public for ten years from this tax would more than supply the whole capital now invested in the production of steel. Besides this fallacious way of estimating the burden of the tariff, there is another fallacy into which free traders are sure to fall. It is now too late to expect that the American people will ever consent to the destruction of their leading industries, and hence it devolves upon the advocates of free trade to show that American production would not be reduced if the tariff was taken off. On the one hand they must prove that the tariff is added to the price paid by consumers and on the other hand that production in America would not be less without a tariff. These two fallacies are both plausible and, when used with skill, are quite effective, but it will not do to bring them into too close connection. This error in judgment Mr. Wells has committed (*vide* his appendix), and the result may be a surprise even to Mr. Wells himself. The facts which he brings forward are very interesting and of especial importance because they are vouched for by so good a free-trade authority as Mr. Wells. He shows that the production of steel in America is now so great that the additional quantity needed by America could not be produced in England without a great increase in the price of materials in Great Britain and on the Continent. The result, then, of the taking off of the tariff in America would not be a reduction of the price of iron and steel in America to that of Europe, but a rise of the price in Great Britain and elsewhere throughout the world. But if this is true, what about Mr. Wells' method of estimating the burden of the tariff? Because the difference between American and English prices of pig iron is seven dollars a ton, does it follow that the burden of the tariff upon the American consumers is seven dollars for each ton if there would be a great rise in the price of pig iron in England in case the tariff were taken off? And is the burden of the tariff upon steel products to be estimated at fifty-six million dollars a year if a like increase in the price of steel would result from an increased demand for

steel from Europe? From Mr. Wells' reasoning it would seem that the effect of a free-trade policy in America as regards iron would be an increase in the price of European iron to the American price without any reduction of the cost of iron to the American consumer. Is this not, however, a concession of the very point which American protectionists have always emphasized, and does it not prove that in reality the tariff on iron and steel is of no disadvantage to American producers even though there is at the present time a marked difference in the price of commodities? Mr. Wells does not show any means by which we can participate in the lower prices of iron in England, and hence there is no way in which a free-trade policy would be of advantage to consumers in America. But this is not all. Look at the injury Mr. Wells would do to England and the rest of the world in order that the free-trade policy may be inaugurated in America. He is willing to cause a heavy advance in the price of iron throughout the whole world, not temporarily, as some protectionists have advocated, but permanently. "For all time" is the term which he uses. If this result would follow from free trade, and there seems to be a good basis for Mr. Wells' opinion, we have a double reason for advocating protection. Protection does us no harm at least, and does consumers in all parts of the world a great advantage in keeping the price of steel and iron in foreign markets much below what it would be if the mines of Europe endeavored to supply American markets.

As free traders so often emphasize the moral point of view, it is well in this connection to notice the moral of Mr. Wells' position. Is it not a most selfish policy to create a high permanent price for iron all over the world merely for the pleasure of making production natural and trade free in America? Protectionists have often advocated higher prices, but they have at least deluded themselves with the notion that an ultimate fall in prices would follow. They have never plotted to raise prices throughout the whole world and thus check all industrial progress. It is reserved for free traders to get happiness by such

means. The motive of some protectionists is very apparent; but who among them has been moved by as low a type of morality as that which is coiled up in the position of Mr. Wells?

We have now presented enough from Mr. Wells' book to show clearly his methods of reasoning and the class of facts upon which he bases his doctrine. His chief errors seem to lie in the fact that he has entered upon the investigation of economic problems with preconceived ideas not fitted to the economic conditions of the present day. All his arguments are based upon these preconceived notions, and the facts are so arranged that they illustrate and even seem to demonstrate his point of view. The great changes in economic doctrine that have taken place throughout the last century have had no influence upon Mr. Wells. We should have to go back before the time of Ricardo and Malthus to find a state of economic doctrine and ideas which would harmonize with the positions he takes. He seems continually to have in mind the time of Adam Smith, and he always emphasizes that point of view which Adam Smith makes prominent. He does not even seem to have studied the literature of the later periods nor that of his opponents of the present day. He is not conscious that there has been a great change in the doctrines of protectionists since the time of the mercantile school, against which Adam Smith wrote so earnestly. By reading ancient free-trade literature instead of modern protectionist books, he has made himself believe that the protectionists of the present day take the same position and have the same conception of economic society that was prevalent in the first part of the eighteenth century. Perhaps the most suitable comment upon Mr. Wells would be to say that he is an eighteenth century man commenting on nineteenth century facts. In Mr. Bellamy's *Looking Backward*, Mr. West, a nineteenth century man, wakes up at the end of the twentieth century to find a new society organized upon a vastly different basis. Yet there was so little change in the clothing during all this period that Mr. West found no inconvenience in the garments of the twentieth century. If we were to suppose that

Mr. Wells could go backwards a century in the way that Mr. West moved forward, and were to find himself in a society of the economists of one hundred years ago, his ideas and economic doctrines would be in as full harmony with the society in which he would find himself as Mr. West's usages and tastes in the matter of clothing were in the society into which he entered. His companions would never discover from his reasoning or from his economic axioms or doctrines that they had a stranger in their midst who had lived all his life in a later century, and who was familiar with the wonderful changes in its economic conditions.

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